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exegy

Performance of Direct Attached Disk Subsystems

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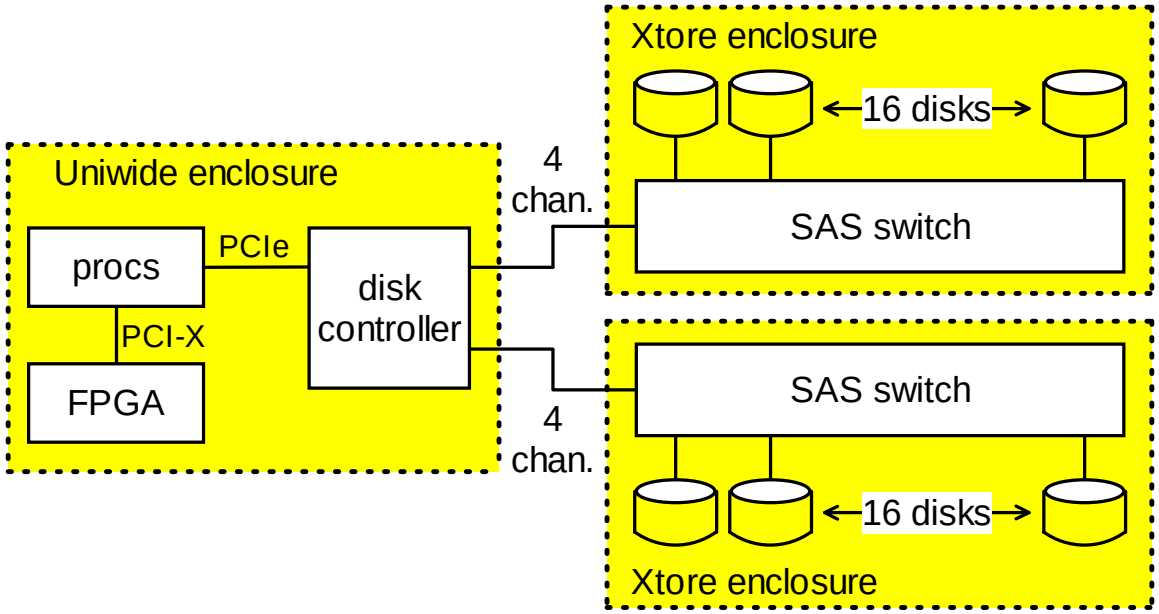
Experimental Systems

Platform 1:

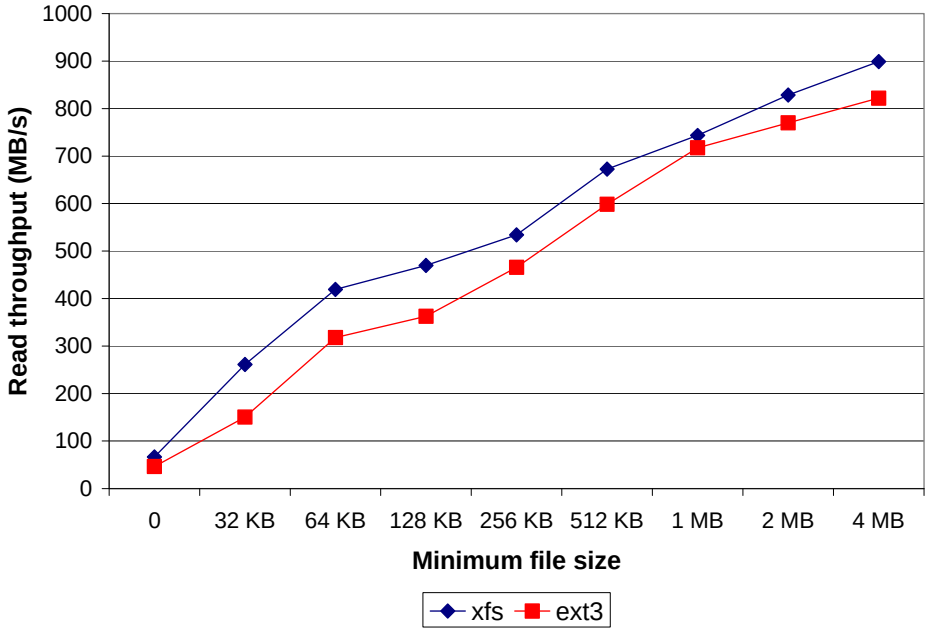
- single 3U enclosure
- 16 drives @ 500 GB
- 2 controllers
- 8 TB of storage

Platform 2:

- three 3U enclosures
- 32 drives
- 1 controller
- 2 SAS expanders
- 13 TB of storage



Empirical Performance



Read throughput as a function of minimum file size

- xfs and ext3 file systems
- platform 2
- 8 logical drives, 4 disks each

Write throughput as a function of position on the disk

- xfs file system
- platform 1
- 4 logical drives, 4 disks each